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ALUMINUM COMPANY OF AMERICA
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(509) 663-5111

ALCOA

1981 November 17

Mr. Ken Feigner
U. S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, WA 98101

Dear Mr. Feigner:

The purpose of this letter is to request a waiver of RCRA groundwater monitoring requirements for a landfill at Wenatchee Works of Aluminum Company of America.

The landfill is used for disposal of spent potlining, a waste that is not currently on the EPA hazardous waste list. However, since it is Alcoa's policy to dispose of spent potlining in an environmentally sound way, we are managing our landfill in a manner that would comply with RCRA standards.

Part 265.90C of RCRA offers a mechanism to obtain a waiver from groundwater monitoring requirements dependent on demonstration of low potential for migration of hazardous waste or hazardous waste constituents from the site. Though EPA review and approval is not a requirement in the waiver mechanism, we would prefer your review and concurrence of the waiver justifications at this time.

Law Engineering Testing Company, after conducting an extensive hydrogeologic study of the site, has determined that there is low potential for the hazardous waste constituent of concern, cyanides, to migrate from the site. In addition, it is predicted that worst-case leachate generation and migration would have negligible impact on the environment.

The waiver justification is based on the following findings:

1. Precipitation/Evaporation Relationship

   Two computer-simulation models have indicated that precipitation/evaporation at the site is such that percolation occurs very infrequently and only in small quantities. As a result, any seepage from the site would be in extremely small volumes.

2. Unsaturated Zone Characteristics

Soil borings at the site show that the upper aquifer is at least 111 feet below natural land surface, 86 feet below the landfill bottom. This distance and existing soil types would cause any seepage to move extremely slow, providing time for some degree of decomposition to occur.

3. Saturated Zone/Surface Waster Characteristics

The saturated zone is estimated to be 40 feet thick. Any seepage reaching the aquifer would be transported to the Columbia River.

Effect of the site on the Columbia River is predicted assuming the following as "worst-case" conditions.

- Maximum concentration of cyanide in leachate based on waste leachate tests (165 mg/l)
- No decomposition occurs
- No dilution in aquifer occurs
- Columbia River at very low flow period (dilution factor of 1×10^6)

Based on these assumptions, the concentration of cyanide after dilution in the Columbia River would be 0.17 ppb, three orders of magnitude lower than the U.S. Public Health Service drinking water standard.

Based on the above findings, Alcoa requests a waiver from the RCRA interim status requirements for groundwater monitoring.

A copy of Law Engineering's full report is enclosed.

Thank you for your consideration.

Sincerely,

James A. Thompson
Northwest Environmental &
Industrial Hygiene Mgr.

JAT:pc

Enclosure